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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,874	03/16/2005	Matthias Winkel	ZAHFRI P735US	9284
20210 7590 12/28/2006 DAVIS & BUJOLD, P.L.L.C. 112 PLEASANT STREET CONCORD, NH 03301			EXAMINER YOUNG, EDWIN	
			ART UNIT 3681	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/28/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/527,874

Applicant(s)

WINKEL ET AL.

Examiner

Edwin A. Young

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/16/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

This is the first action on the merits for application 10/527,874. Claims 22-42 are pending in this application.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. PCT/EP03/10276, filed on 9/16/2003.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 3/16/2005 has been considered by the examiner.

Drawings

The drawings were received on 3/16/2005. These drawings are acceptable.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the double clutch transmission having a second clutch being activated with respect to torque transmission capacity in addition to a first clutch, which is closed for a shifted step, of claim 31 and the synchronization device for a not shifted transmission step of claim 31 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 22 is objected to because of the following informalities: line 7, "components are" should be changed to - -components is/are- -; line 8, "or are excited" should be changed to - -or is/are excited- -. Appropriate correction is required.

Claim 31 is objected to because of the following informalities: lines 3-4 state, "so far and as frequently and with such a vibration phase offset." It appears that this phrase should be rewritten to better convey its meaning, i.e. by deleting "so far and as frequently". Appropriate correction is required.

Claim 32 is objected to because of the following informalities: lines 3-4 state, "so far and as frequently and with such a vibration phase offset." It appears that this phrase should be rewritten to better convey its meaning, i.e. by deleting "so far and as frequently". Appropriate correction is required.

Claim 34 is objected to because of the following informalities: line 10, "acts in at least one rotating component" should be changed to - acts on at least one rotating component- -; line 10, "such that latter component" should be changed to - such that a latter component- -; line 11, "components are continuously" should be changed to - components is/are continuously- -. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 22-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 22-33 are in improper method claim format, which require method steps to include the active verb form, i.e. determining, sensing, having, etc. Claims 22-33 are rendered indefinite, as it is unclear what steps applicant is actually claiming. Claims 22-33 should be rewritten to comply with proper method claim formatting.

CLAIM 23

- The term "similar" in claim 23 is a relative term which renders the claim indefinite. The term "similar" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear what is meant by a "similar frequency."

CLAIM 24

- Line 2 states “a starting or gear box.” It is unclear as to what is meant by “starting.” It appears as though applicant is referring to a starting clutch.

CLAIM 29

- Regarding claim 29, the phrase “preferably” renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

CLAIM 34

- Line 6 states, “with devices.” It is unclear which devices applicant is referring to. Applicant cannot rely on reference numeral to delineate the metes and bounds of the claim.
- Lines 8-9, “the disturbing motion” appears to be a double inclusion of “the disturbing vibrations” recited in line 1 of claim 34. Applicant should change “the disturbing motion” to - -the disturbing vibrations- -.
- Line 9, “the device” appears to be a double inclusion of “the control and regulating device” recited in lines 2-3 of claim 9. Applicant should change “the device” to - -the control and regulating device- -.

CLAIM 35

- Claim 35 recites the limitations “the input side” in lines 1-2 and “the output side” in line 2. There is insufficient antecedent basis for these limitations in the claim.

- Regarding claim 35, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
- Lines 2-3 state, "a starting or gear box." It is unclear as to what is meant by "starting." It appears as though applicant is referring to a starting clutch.

CLAIM 36

- Regarding claim 36, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

CLAIM 42

- Regarding claim 42, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 22, 26, 33, 34, 35, 37, 40 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by RANSON et al. (GB 2,346,351 A).

Regarding claim 22 as best understood, RANSON et al. discloses a method for reducing disturbing vibrations in a motor vehicle in which the disturbing vibrations are determined by a control and regulating device using suitable sensors, at least one device is activated when previously established limiting values are exceeded by the control and regulating device such that an amplitude of the disturbing motion is completely eliminated or at least damped, the at least one device acts in at least one rotating component in a motor vehicle drive train such that a latter component or components is/are continuously or periodically braked in rotary motion when the disturbing vibrations occur or is/are excited to a compensatory vibration. (see Figs. 1 and 4a-4c; ABSTRACT, page 1, lines 20-21; page 2, lines 8-15; page 3, lines 21-22; and page 4, lines 1-10 and 15-18)

Regarding claim 26 as best understood, RANSON et al. discloses the steps of an abrasion-free permanent brake (13) arranged according to drive engineering behind a transmission being actuated by the control and regulating device (15) such that with a rise in the vibration amplitude of the disturbing vibration, the permanent brake brakes a rotational speed of wheel drive shafts such that the amplitude of the disturbing longitudinal oscillation is reduced to a predetermined value. (see page 4, lines 15-18)

Regarding claim 33 as best understood, RANSON et al. discloses the steps of the control and regulating device recording rotational speeds of a clutch input side and a clutch output side with aid of rotational speed sensors, and motor vehicle acceleration

being ascertained by the control and regulating device with aid of a sensor unit that recognizes longitudinal acceleration. (see page 4, lines 1-6)

Regarding claim 34, RANSON et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see Figs. 1 and 4a-4c). The device comprising a control and regulating device (15); sensors (29, 30 and 33-35); leads (unlabeled wires attached to (15)); the control and regulating device being activated when previously established limiting values are exceeded by the control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the device acts on at least one rotating component (20) in the drive train such that a latter component or components is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration. (see ABSTRACT; page 1, lines 20-21; page 2, lines 8-15; page 3, lines 21-22; and page 4, lines 1-10 and 15-18)

Regarding claim 35, RANSON et al. discloses the rotational speed of one of an input side (31) or an output side (19) of a clutch (11) being recorded with the rotational speed sensors (29, 30). (see page 4, lines 1-6)

Regarding claim 37, RANSON et al. discloses the control and regulating device being connected to an actuating device for activating a clutch via a control line (see

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page 3, lines 14-16). Note that RANSON et al. implies the use of a foot actuated clutch which, through sensors (29) and (30), is connected to the control and regulating device (15).

Regarding claim 40, RANSON et al. discloses the control and regulating device being connected to an abrasion-resistant permanent brake (13) for braking motor vehicle drive shafts (22) through a control line (unlabeled).

Regarding claim 42, RANSON et al. discloses the control and regulating device being connected to a rotational speed actuating device via a control line (see page 2, lines 11-13).

Claims 22-24, 34, 38 and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by EVANS et al. (US 2003/0125850 A1).

Regarding claim 22 as best understood, EVANS et al. discloses a method for reducing disturbing vibrations in a motor vehicle in which the disturbing vibrations are determined by a control and regulating device using suitable sensors, at least one device is activated when previously established limiting values are exceeded by the control and regulating device such that an amplitude of the disturbing motion is completely eliminated or at least damped, the at least one device acts in at least one rotating component in a motor vehicle drive train such that a latter component or components is/are continuously or periodically braked in rotary motion when the disturbing vibrations occur or is/are excited to a compensatory vibration. (see Figs. 1 and 4; ABSTRACT; page 1, paragraphs [0001], [0005] and [0010]; page 2, paragraphs [0011], [0012] and [0017])

Regarding claim 23 as best understood, EVANS et al. discloses the steps of the compensatory vibration or brake intervention having a same or a similar frequency as the disturbing vibration, but having a phase offset in relation to the disturbing vibration that leads to a reduction in amplitude of the disturbing vibration. (see Fig. 4 and page 1, paragraphs [0001], [0005] and [0010]; page 2, paragraphs [0017]).

Regarding claim 24 as best understood, EVANS et al. discloses the steps of one of a starting clutch or gear box in the drive train being actuated by the control and regulating device such that torque transmission capacity oscillates with the frequency of the disturbing vibration and has a phase offset in relation to the disturbing vibration through which the amplitude of the disturbing vibration is reduced to a predetermined value (see Fig. 4 and page 1, paragraph [0005]; page 2, paragraphs [0011]). Note that EVANS et al. discloses using the transmission ratio to control the motor (16) torque transmission capacity in the manner described in claim 24.

Regarding claim 34, EVANS et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see Figs. 1 and 4). The device comprising a control and regulating device (30); sensors (42); leads (wires attached to (30)); the control and regulating device being activated when previously established limiting values are exceeded by the control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the device acts on at least one rotating component (18) in the drive train such that a latter component or components is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a

compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration. (see ABSTRACT; page 1, paragraphs [0001], [0005] and [0010]; page 2, paragraphs [0011], [0012] and [0017])

Regarding claim 38, EVANS et al. discloses the control and regulating device (30) being connected to an actuating device for activating a synchronization device in a gear box (14) through a control line (36) (see page 1, paragraph [0010]). Note that EVANS does not expressly state the use of an actuating device for activating a synchronization device in a gear box. However, EVANS et al. implies using an actuating device by stating the use of the control and regulating device (30) to control the shifting of the transmission. This is interpreted as meeting the claim language.

Regarding claim 40, EVANS et al. discloses the control and regulating device being connected to an abrasion-resistant permanent brake (16) for braking motor vehicle drive shafts (24a and 24b) through a control line (38).

Claims 22, 23, 27, 34 and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by KOLBE et al. (US 6,050,652).

Regarding claim 22 as best understood, KOLBE et al. discloses a method for reducing disturbing vibrations in a motor vehicle in which the disturbing vibrations are determined by a control and regulating device using suitable sensors, at least one device is activated when previously established limiting values are exceeded by the

control and regulating device such that an amplitude of the disturbing motion is completely eliminated or at least damped, the at least one device acts in at least one rotating component in a motor vehicle drive train such that a latter component or components is/are continuously or periodically braked in rotary motion when the disturbing vibrations occur or is/are excited to a compensatory vibration. (see ABSTRACT; column 1, lines 6-12 and 30-39; column 2, lines 66-67; column 3, lines 1-3 and 53-60 and column 5, lines 47-51)

Regarding claim 23 as best understood, KOLBE et al. discloses the steps of the compensator vibration or brake intervention having a same or a similar frequency as the disturbing vibration, but having a phase offset in relation to the disturbing vibration that leads to a reduction in amplitude of the disturbing vibration. (see column 5, lines 17-20)

Regarding claim 27 as best understood, KOLBE et al. discloses the steps of service brakes being actuated on driven motor vehicle wheels by the control and regulating device such that with a rise in the vibration amplitude of the disturbing vibration, the driven motor vehicle wheels are braked to a rotational speed via which the amplitude of the disturbing vibration is reduced to a predetermined value. (see ABSTRACT; column 1, lines 30-39; and column 5, lines 47-51)

Regarding claim 34, KOLBE et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see ABSTRACT). The device comprising a control and regulating device (see column 1, lines 6-12); sensors (column 2, lines 66-67 and column 3, lines 1-3); leads (inherent); the control and regulating device being activated when previously established limiting values are exceeded by the

control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the device acts on at least one rotating component in the drive train such that a latter component or components is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration. (see ABSTRACT; column 1, lines 6-12 and 30-39; column 2, lines 66-67; column 3, lines 1-3 and 53-60 and column 5, lines 47-51)

Regarding claim 41, KOLBE et al. discloses the control and regulating device being connected to service brakes on driven motor vehicle wheels via control lines. (see ABSTRACT; column 1, lines 6-12 and 30-39; column 2, lines 66-67; column 3, lines 1-3 and 53-60 and column 5, lines 47-51)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over RANSON et al. (GB 2,346,351 A) in view of SCHUBERT et al. (US 3,701,499).

Regarding claim 36, RANSON et al. discloses the device according to claim 34, described in detail above, but does not disclose a disturbing motor vehicle longitudinal oscillation, preferably in a region of a motor vehicle seat, being recorded with the vibration sensor.

SCHUBERT et al. discloses an active fluid isolation system (see Fig. 1) having a signal indicative of a motor vehicle seat longitudinal oscillation disturbance being sent to a controller (see column 4, lines 8-16).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the device for reducing disturbing vibrations in a drive train and in a motor vehicle of RANSON et al. with a disturbing motor vehicle longitudinal oscillation in a region of a motor vehicle seat being recorded with the vibration sensor, in light of the teachings of SCHUBERT et al., in order to ensure the stabilization of the vehicle seat (see SCHUBERT et al., ABSTRACT).

Allowable Subject Matter

Claims 25, 28-32 and 39 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- PELS et al. (US 2002/0177504 A1) discloses a dual clutch hybrid transmission as shown in Figs. 1-5.
- DREIBHOLZ et al. (US 6,969,338) discloses a method for controlling and regulating a drive train (see ABSTRACT and Figs. 1-3).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. Young whose telephone number is 571-272-4781. The examiner can normally be reached on M-TH 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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